

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wier (U.S. Pat. No. 6,206,315).

Wier discloses a torsion bar 10, 12 for application in belt winders for safety belts, comprising a bar having end sections on which drive and/or locking elements for positive connection to respective devices are arranged. The bar is shown as being formed in one piece with the drive and/or locking elements. The torsion bar is made of aluminum and has a conical section or flute between the drive and/or locking elements.

The bar appears to be the same as the claimed torsion bar. Assuming, arguendo, that it is not, it would have been obvious to form the bar in one piece in a cold forming impact extrusion process since it is old and well known to form metal objects using such a process. The torsion bar of Wier is capable of being exchanged for another bar having a different diameter as recited in claim 1, lines 7-8.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wier (U.S. Pat. No. 6,206,315).

Wier is described above.

Wier does not disclose that the aluminum has a 99.5% by vol. purity.

It would have been a matter of obvious engineering choice to one having ordinary skill in the art at the time the invention was made to form the torsion bar of aluminum having a purity of 99.5% since it would have required no more than routine experimentation to determine the acceptable level of purity of aluminum to obtain the desired workability and energy absorbing capability.

Response to Arguments

Applicants' arguments filed 3/8/10 have been fully considered but they are not persuasive.

Applicants argue that Wier does not disclose a torsion bar produced in one piece with drive and/or locking elements. However, Wier shows drive or locking elements in at least Figs. 2, 2a, 4-7, 9, and 11 that are formed in one piece with the torsion bar. In

some of the drawings the drive or locking elements are shown meshing with teeth on elements 2 or 6.

Applicants argue that Wier does not suggest a torsion bar where different torques in relation to deformation of the bar at constant sizes of drive or locking elements are achieved by exchanging the bar with another bar having a different diameter. However, the claims are directed to a torsion bar and not a method of use of a torsion bar. The claimed use of the torsion bar involving exchange with a different torsion bar does not distinguish over the torsion bar in Wier because the torsion bar in Wier is capable of the claimed use, i.e., it can be exchanged for a torsion bar having a different diameter.

Applicants argue that the claimed compound from which the torsion bar is formed was the result of extensive research, trial, and error. However, applicants have not presented any evidence that the claimed nearly pure aluminum differs in a significant and unpredictable way from the aluminum (aluminum as contrasted with an aluminum alloy) disclosed in Wier. Applicants do not disclose what the impurities are, whether any or which ones are critical, what the critical levels of each would be, etc. It is known that pure and nearly pure aluminum are ductile and suitable for forming by extrusion. The properties of aluminum and its alloys are well known. It would have been a routine matter for an ordinary artisan to select a concentration of aluminum to use to form the aluminum torsion bar disclosed in Wier to obtain the disclosed results.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCOTT HAUGLAND whose telephone number is (571)272-6945. The examiner can normally be reached on Mon. - Fri., 10:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Q. Nguyen can be reached on (571) 272-6952. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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